

METHOD OF FORMING A TRENCH STRUCTURE

Abstract

A method of fabricating a filled trench structure, the method including: (a) forming a first set of trenches in a first region of a substrate and forming a second set of trenches in a second region of the substrate, trenches in the first set of trenches having a higher aspect ratio than the trenches in the second region; (b) depositing a fill material in the first and second set of trenches and on a top surface of the substrate, the fill material completely filling the trenches; (c) removing an upper portion of the fill material; and (d) removing, using a planarization process, all fill material from the top surface of the substrate, a top surface of the fill material in the first and second sets of trenches co-planer with the top surface of the substrate.